

# SAMPLE WRITTEN TEST

## EMBRYOLOGY

### Simple choice questions

Please select only one correct answer!

**The neurenteric canal is a transient connection between:**

- a, the amniotic cavity and the yolk sac
- b, the neural tube and the yolk sac
- c, the neural tube and the notochord
- d, the notochordal canal and the allantois
- e, midgut and the yolk sac

**Which cells are found in a primary chorionic villus?**

- a, somatopleura, splanchnopleura
- b, amniotic epithelium, chorionic plate
- c, epiblast, hypoblast
- d, cytotrophoblast, syncytiotrophoblast
- e, amniotic epithelium, mesenchyme

**When is the second meiotic division of the oocyte completed?**

- a, immediately after ovulation
- b, during acrosome reaction
- c, during capacitation
- d, once in a month, during follicular maturation
- e, immediately after the penetration of a sperm

**Which period of intrauterine development is associated with organogenesis?**

- a, first 4 weeks
- b, weeks 3-8
- c, weeks 10-13
- d, months 4-7
- e, weeks 12-40

**What is the meaning of the CRL index (used in fetal ultrasound diagnosis)?**

- a, sitting height
- b, standing height
- c, frontal diameter of head
- d, sagittal diameter of head
- e, length of femur

### Multiple choice questions

Please select ALL (2-5) correct answers!

**Choose the TRUE statements concerning capacitation!**

- a, it takes place in the female reproductive tract
- b, it takes place after penetration of zona pellucida
- c, it prevents polyspermia
- d, it is an essential precondition of fertilization
- e, it is accompanied by the second meiotic division of the oocyte

**Which of the following structures contains both ectoderm and endoderm?**

- a, cloacal membrane
- b, septum transversum
- c, allantois
- d, somite
- e, buccopharyngeal membrane

# ANATOMY

## Simple choice questions

Please select only one correct answer!

**Select the type of the median atlantoaxial joint!**

- a, hinge (ginglymus)
- b, pivot
- c, ball-and-socket
- d, saddle
- e, ellipsoid

**Which of the following muscles is innervated by the deep peroneal (fibular) nerve?**

- a, peroneus longus
- b, popliteus
- c, tibialis posterior
- d, tibialis anterior
- e, quadratus plantae

**Select the name of the ligament connecting the vertebral arches!**

- a, ligamentum flavum
- b, anterior longitudinal ligament
- c, posterior longitudinal ligament
- d, arcuate ligament
- e, intertransverse ligament

**Which of the following is NOT a direct (or indirect) branch of the ulnar artery?**

- a, recurrent ulnar artery
- b, common interosseous artery
- c, superficial palmar arch
- d, anterior interosseous artery
- e, princeps pollicis artery (principal artery of the thumb)

**Which spaces are connected by the pterygoid (Vidian) canal?**

- a, nasal cavity and orbit
- b, pterygopalatine fossa and nasal cavity
- c, pterygopalatine fossa and external cranial base
- d, pterygopalatine fossa and middle cranial fossa
- e, pterygopalatine fossa and middle ear (tympanic cavity)

## Multiple choice questions

Please select ALL (2-5) correct answers!

**Select the statements TRUE for the sacrum!**

- a, Develops by the fusion of 5 vertebrae
- b, The auricular facet is attached to the ischium
- c, The median sacral crest corresponds to the spinous processes
- d, It is connected to the pubis by the lig. flava
- e, The promontory is an elevation of the pelvic surface

**Choose the FALSE statements!**

- a, Syndesmosis is a joint (diarthrosis) containing cartilage between bones
- b, Synchronosis is a ligamentous connection between two bony ends
- c, Hinge (ginglymus) is a type of joint with a single axis of motion
- d, Typical movements of ellipsoid joints are flexion, extension, abduction, adduction and rotation
- e, An articular labium (e.g. glenoid labrum) is composed of hyaline cartilage

# HISTOLOGY

## Simple choice questions

Please select only one correct answer!

**Which blood cells are also known as 'macrophages'?**

- a, monocytes
- b, fibroblasts
- c, plasma cells
- d, basophils
- e, neutrophils

**Which type of collagen is found in the basal lamina?**

- a, I.
- b, II.
- c, III.
- d, IV.
- e, neither

**Which of the following is found in the peripheral nervous system?**

- a, satellite cell
- b, protoplasmic astrocyte
- c, oligodendroglia
- d, microglia
- e, ependyma

**Which statement is TRUE concerning a serous acinus?**

- a, the lumen is wide
- b, it stains purple with mucicarmine
- c, the cytoplasm is eosinophilic
- d, the cells contain zymogenic granules
- e, it never forms part of a demilune of Gianuzzi

**TRUE concerning the brush border:**

- a, consists of kinocilia
- b, typical of the respiratory epithelia
- c, occurs mostly on the surface of pseudostratified columnar epithelium
- d, typical of simple epithelia of the GI tract, specialized for absorption
- e, characteristic surface feature of goblet cells

## Multiple choice questions

Please select ALL (2-5) correct answers!

**Choose the statements TRUE for hyaline cartilage!**

- a, Virtually avascular tissue
- b, Regenerates easily
- c, The histological unit is the chondron
- d, The perichondrium consists of fibrous and synovial layers
- e, The cells are often seem to have a vacuolated, 'empty-looking' cytoplasm

**Which of the following statements will be TRUE for fibroblasts?**

- a, produce tropocollagen
- b, contain large amounts of RER
- c, the inactive forms are fibrocytes
- d, the nuclei are rich in heterochromatin
- e, the cytoplasm displays intense eosinophilia